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| APPLICATION NO.                     | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------------|-------------|-----------------------|---------------------|------------------|
| 09/997,475                          | 11/19/2001  | Jaime E. Ramirez-Vick | 25527-0003 C1       | 6193             |
| 25213                               | 7590        | 10/24/2003            | EXAMINER            |                  |
| HELLER EHRMAN WHITE & MCAULIFFE LLP |             |                       | FORMAN, BETTY J     |                  |
| 275 MIDDLEFIELD ROAD                |             |                       | ART UNIT            |                  |
| MENLO PARK, CA 94025-3506           |             |                       | PAPER NUMBER        |                  |

1634

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                        |                                      |  |  |
|------------------------|--------------------------------------|--|--|
| <b>Advisory Action</b> | <b>Application No.</b><br>09/997,475 | <b>Applicant(s)</b><br>RAMIREZ-VICK ET AL. |  |
|                        | <b>Examiner</b><br>BJ Forman         | <b>Art Unit</b><br>1634                    |  |

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 14 October 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached Continuation of Advisory Action.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1,4-9 and 12-16.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

### **Continuation of Advisory Action**

This action is in response to After-Final papers filed 14 October 2003 in which claims 1 and 9 were amended; claims 2, 3, 10 and 11 were canceled; and the first paragraph of the specification was amended. It is noted that page 6 of the response identifies Claim 16 as amended. However, Claim 16 is not instantly amended.

All of the amendments have been thoroughly reviewed and entered.

The previous objection to the specification is withdrawn in view of the amendments to the first paragraph.

The previous rejections under 35 U.S.C. 102(e) and 35 U.S.C. 103(a) are maintained.

All of the arguments have been thoroughly reviewed and are discussed below.

Claims 1, 4-9, 12-16 are under prosecution.

### **Response to Arguments**

Applicant argues that Blackburn does not teach inverting polarity of the magnetic field to remove unbound molecules and does not teach a solid support that is coated with platinum (II), mercury, mercury (II), thallium, cadmium (II), platinum (IV), or palladium (II).

The arguments have been considered but are not found persuasive for the following reasons.

Step e) of Claims 1 and 9 recites "washing the support and inverting the polarity of the magnetic field to remove any unbound or nonspecifically bound molecules". Blackburn clearly teaches washing the support whereby unbound molecules are removed (e.g. Column 20, lines 4-18) and they clearly teach inverting the polarity of the magnetic field to mix of shuttle to

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thereby bind specific binding molecules (e.g. Column 19, lines 29-65 and Column 21, lines 60-67). Because Blackburn teaches washing the support and inverting polarity of the magnetic field thereby removing unbound or non-specifically bound molecules, they disclose the elements claimed in step e.

Step a) of Claim 1 and 9, as amended, recites a solid support "is coated with a metal selected from the group consisting of platinum (II), mercury, mercury (II), thallium, cadmium (II), platinum (IV) and palladium (II). The recitation "is coated with" is interpreted as a product by process step whereby the support is coated with one of recited metals to thereby provide a coating on the support. This interpretation is supported by the fact that a support used for hybridization would not function as a hybridization support if it had a constant charge (e.g. +2 charge of platinum (II)).

Blackburn teach a support comprising platinum or palladium (Column 10, lines 59-66 and Column 15, lines 51-54). Because the support of step a) is recited as a product by process support, the supports of Blackburn meet the limitations of the claim.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) see MPEP 2113.

Regarding the rejections over Blackburn in view of Roelant, Applicant argues that Roelant does not teach or suggest use of paramagnetic porphyrins to induce movement of particles in a magnetic field and therefore the prior art does not provide a motivation or suggestion to combine their teachings.

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In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Roelant provides motivation for utilizing paramagnetic porphyrin labels i.e. the porphyrin label provides a universal label which attaches irreversibly without bridging agents and can be detected in an amount which is proportional to the number of labeled particles (Column 3, lines 59-65). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to label the paramagnetic beads of Blackburn et al with the porphyrin label taught by Roelant for the expected benefit of irreversible attachment of the label and for the additional benefit of quantifying target simply by quantifying the label as taught by Roelant (Column 3, lines 59-65).

Regarding the rejections over Blackburn in view of Baselt, Applicant argues that they do provide the elements lacking in Blackburn as discussed above. The argument has been considered but is not found persuasive for the reasons stated above.

Regarding the rejections over Blackburn in view of Brown, Applicant argues that they do provide the elements lacking in Blackburn as discussed above. The argument has been considered but is not found persuasive for the reasons stated above.

Regarding the rejections over Blackburn in view of Brown and Baselt, Applicant argues that they do provide the elements lacking in Blackburn as discussed above. The argument has been considered but is not found persuasive for the reasons stated above.

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### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (703) 306-5878. The examiner can normally be reached on 6:30 TO 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (703) 308-1119. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 308-8724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.



BJ Forman, Ph.D.  
Primary Examiner  
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October 23, 2003